BioOne COMPLETE

DIOLCUS VARIEGATUS (HETEROPTERA: PENTATOMOIDEA: SCUTELLERIDAE), A CARIBBEAN SPECIES ESTABLISHED IN SOUTH FLORIDA

Authors: Eger, J. E., and Baranowski, R. M.

Source: Florida Entomologist, 85(1) : 267-269

Published By: Florida Entomological Society

URL: https://doi.org/10.1653/0015-4040(2002)085[0267:DVHPSA]2.0.CO;2

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Downloaded From: https://complete.bioone.org/journals/Florida-Entomologist on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

DIOLCUS VARIEGATUS (HETEROPTERA: PENTATOMOIDEA: SCUTELLERIDAE), A CARIBBEAN SPECIES ESTABLISHED IN SOUTH FLORIDA

J. E. EGER, JR.[1] AND R. M. BARANOWSKI[2]
[1]Dow AgroSciences, 2606 S. Dundee Blvd., Tampa, FL 33629

[1]Research Associate, Florida State Collection of Arthropods,
Florida Department of Agriculture and Consumer Services, Gainesville, FL

[2]Tropical Research and Education Center, University of Florida, 18905 SW 280 St., Homestead, FL 33031-3314

ABSTRACT

Diolcus variegatus (Herrich-Schaeffer), a species previously know from the Greater Antilles, was recently discovered in the Homestead area of South Florida. It is abundant and apparently well established on *Malvastrum corchorifolium* (Desc.) Britt. ex Small. (Malvaceae). This is the first Florida and United States record for this species. *Diolcus variegatus* is described and figured and a key to Scutelleridae occurring in Florida is provided to facilitate recognition of this species in Florida.

Key Words: Scutelleridae, distribution, *Diolcus variegatus*

RESUMEN

Diolcus variegatus (Herrich-Schaeffer), una especie previamente conocida en las Antillas Mayores fue descubierta recientemente en el área de Homestead al sur de la Florida. Dicha especie es abundante y esta aparentemente bien establecida en *Malvastrum corchorifolium* (Desc.) Britt. ex Small (Malvaceae). Este es el primer registro de esta especie en la Florida y los Estados Unidos. *Diolcus variegatus* es descrita e ilustrada y además se provee una clave de Scutelleridae para la Florida facilitando el reconocimiento de esta especie.

Two species of *Diolcus* are reported from the United States (Kirkaldy 1909, Lattin 1964). These are *D. chrysorrhoeus* (Fabricius) from Texas to Georgia and Florida, and *D. irroratus* (Fabricius) from Florida. During a visit to the Tropical Research and Education Center (TREC) on August 11, 2001, the senior author collected a single callow specimen of *D. variegatus* (Herrich-Schaeffer). On September 25, 2001, we jointly collected another 55 adults and several nymphs from the TREC and other locations in Homestead. *Diolcus variegatus* was described from 'Nordamerika' which at the time may have included the Caribbean. It has previously been reported from Jamaica (Dallas 1851), Dominican Republic (Walker 1867), and Cuba (Stål, 1870), Barber and Bruner 1932). Barber (1939) stated that it should occur in Puerto Rico but that he had not seen specimens from that locality. We have seen specimens from all of the above locations and from Haiti, Caymen Brac and Grand Caymen Island. It has not been reported from Florida or the United States and appears to be an introduced species well established in the Homestead area. In this paper we provide a key to the Florida species of the family Scutelleridae, and a diagnosis and figure of *D. variegatus* to facilitate its recognition among Florida scutellerids.

KEY TO FLORIDA SPECIES OF SCUTELLERIDAE

1. Antennae 3-segmented (Subfamily Scutellerinae) . . . . . *Augocoris illustris* (F.)

1'. Antennae 5-segmented (Subfamily Pachycorinae) . . . . . 2.

2(1). Pronotum with a distinct transverse impression, small black elongate species . . . . . *Acantholomidea porosa* (Germar)

2'. Pronotum lacking distinct transverse impression, color variable, but not black . . . . . 3.

3(2). Metathoracic scent gland canal well developed, extending ½ or more distance from ostiole to lateral margin of metapleuron . . . . . 4.

Downloaded From: https://complete.bioone.org/journals/Florida-Entomologist on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

3'. Metathoracic scent gland canal absent or at most present as a small auricle, extending less than ½ of distance from ostiole to lateral margin of metapleuron. . . . . 7.

4(3). Metathoracic scent gland canal relatively straight, apex not reaching anterior margin of metapleuron . 5.

4'. Distal ⅓ or more of metathoracic scent gland canal distinctly curved anterad, reaching anterior margin of metapleuron. . . . . 6.

5(4). Parameres hammer-shaped . . . . . *Symphylus caribbeanus* Kirkaldy

5'. Reflexed, parameres uncinate. . . . . *Stethaulax marmorata* (Say)

6(4). Distal ⅓ of metathoracic scent gland canal broadly expanded. . . . . *Sphyrocoris obliquus* (Germar)

6'. Distal ⅓ of metathoracic scent gland canal approximately parallel-sided, not strongly expanded distally . . . . . .*Homaemus parvulus* (Germar)

7(3). Small auricle (length 1-3 times width of ostiole) accompanying scent gland ostiole. . . . . 8.

7'. Scent gland ostiole lacking distinct auricle (*Diolcus*) . . . . . 10.

8(7). Abdominal venter strongly convex, lateral margins not compressed dorso-ventrally . . . . . *Orsilochides guttata* (Herrich-Schaeffer)

8'. Abdominal venter slightly convex, lateral margins compressed dorso-ventrally (*Tetyra*) . . . . . 9.

9(8). Rostrum long, reaching to or nearly to last abdominal segment; antennae pale with black annulations . . . . . *Tetyra antillarum* Kirkaldy

9'. Rostrum shorter, not surpassing second visible abdominal segment; antennae relatively uniform in color . . . . . .*Tetyra bipunctata* (Herrich-Schaeffer)

10(7). Antennae pale with dark annulations; head elongate, strongly convex, tylus prominent; cicatrices bordered posteriorly by pale fascia; dorsum with pale mesial line running length of body . . . . . *Diolcus variegatus* (Herrich-Schaeffer)

10'. Antennae relatively uniform in color; head relatively short, broad, moderately convex, tylus not prominent; cicatrices not bordered by pale fascia, at most with short pale macules; dorsum lacking pale mesial line . . . . . 11.

11(10). At least some punctation green; typically with black almost circular macule on each side of scutellum; last abdominal sternite of males entire posteriorly, hiding male genitalia . . . . . *Diolcus chrysorrhoeus* (Fabricius)

11'. Dorsum pale with reddish brown punctation; scutellum lacking dark macules; last abdominal sternite of males emarginate, revealing male genital segment . . . . . *Diolcus irroratus* (Fabricius)

*Diolcus variegatu*s (Herrich-Schaeffer 1836).

Pachycoris variegatus Herrich-Schaeffer, 1836, p. 106-107, Fig. 332; Germar, 1839, p. 93.

Symphylus variegatus; Dallas, 1851, p. 38; Walker, 1867, p. 54.

Diolcus variegatus; Stål, 1870, p.10; Schouteden, 1904, p. 57, pl. 3, Fig. 3; Barber and Bruner, 1932, p. 242; Barber, 1939, p. 279, Fig. 3; Bruner, Scaramuzza and Otero, 1945, p. 167.

Diagnosis:

Dorsum pale yellow to rufous, densely punctured, punctation dark brown to black, pale mesial line extending from apex of scutellum to tylus. Length: 7.8-10.4 mm, maximum width 5.4 to 6.8 mm. Venter variable in color, punctation moderately dense, less dense along lateral margins and mesially on abdomenal sternites.

Head elongate, narrow, strongly convex above, tylus distinctly surpassing apices of juga; punctation dense, relatively sparse on tylus. Antennal segments 1 and 2 pale, basal half of segment 3 pale, apical half black, segments 4 and 5 black, narrowly pale annulated at base and apex. Rostrum reaching or extending onto third visible abdominal sternite.

Pronotum densely dark punctured, midline, four additional vague vittae on posterior half, and posterior margins of cicatrices pale yellow. Anterolateral margins straight to slightly sinuous. Coloration of legs variable, but with rufus to black macules, these frequently coalescing to form large dark areas.

Last abdominal sternite of males emarginate, exposing genital cup, parameres uncinate. Basal plates of females flat mesially, becoming convex near lateral margins, postero-lateral margins sinuous, arched below ninth paratergites.

Collection Data:

Specimens were collected on false mallow, *Malvastrum corchorifolium* (Desc.) Britt. ex

Downloaded From: https://complete.bioone.org/journals/Florida-Entomologist on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

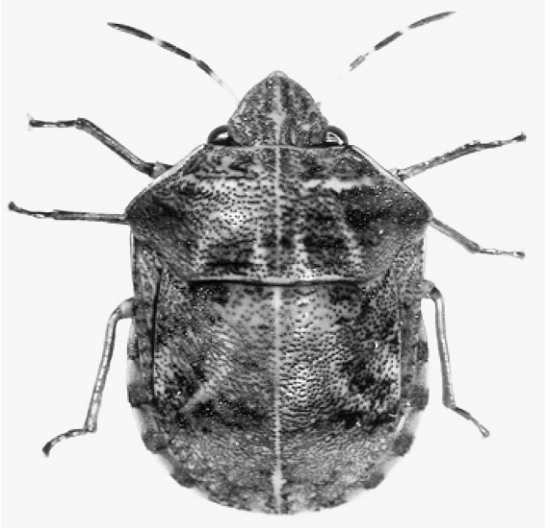


Fig. 1. *Diolcus variegatus*, Habitus.

Small. (Desc.) Britt. ex Small (Malvaceae). Adults and nymphs were observed feeding on the fruit of this plant, leaving little doubt that it was the host plant. Bruner et al. (1845) list another mallow, *Sida carpinifolia* L.) as a host plant. One male was collected at the TREC on August 11, 2001; 17 males, 38 females and 10 nymphs were collected on September 25, 2001. Collection localities on the second date were TREC and scattered locations around Homestead, but the bulk of the specimens were collected from a large roadside stand of *M. corchorifolium* at the corner of SW 207 Ave. and SW 320 St. Voucher specimens have been placed in the collections of both authors and in the Florida State Collection of Arthropods, Gainesville, FL.

Acknowledgments

We thank Roger L. Hammer, Naturalist/Botanist, Homestead, FL and Carlos R. Artand, Florida Department of Agriculture and Consumer Services, Gainesville, FL for identifying *Malvastrum corchorifolium* for us.

Literature Cited

Barber, H. G. 1939. Insects of Porto Rico and the Virgin Islands—Hemiptera—Heteroptera (excluding the Miridae and Corixidae). Sci. Surv. Porto Rico 14: 263-441.

Barber, H. G., and S. C. Bruner. 1932. The Cydnidae and Pentatomidae of Cuba. J. Dept. Agric., Univ. Porto Rico 16: 231-284, pls. 24-26.

Bruner, S. C., L. C. Scaramuzza, and A. R. Otera. 1945. Catalogo de los insectos que atacan a las plantas economicas de Cuba. Santiago de las Vegas, Cuba Estac. Exp. Agron. Bol. 63: 246 pp.

Dallas, W. S. 1851. List of the specimens of hemipterous insects in the collection of the British Museum. London, Part 1, 368 pp.

Germar, E. F. 1839. Beitrage zur einer Monographie der Schildwanzen. Zeit. Entomol. 1: 1-146, pl. 1.

Herrich-Schaeffer, G. A. W. 1836. Die Wanzenartigen Insecten. Vol. 3: 17-114.

Schouteden, H. 1904. Heteroptera. Fam. Pentatomidae. Subfam. Scutellerinae. Wytsmann Genera Insectorum, fasc. 24, 98 pp., 5 pls.

Stål, C. 1870. Enumeratio Hemipterorum. 1. Enumeratio Scutellerinorum Americae. Kongl. Svenska Vet.-Akad. Handl. 9: 4-20.

Walker, F. 1867. Catalogue of the specimens of Hemiptera: Heteroptera in the collection of the British Museum. London. Part. 1, 240 pp.

Downloaded From: https://complete.bioone.org/journals/Florida-Entomologist on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use